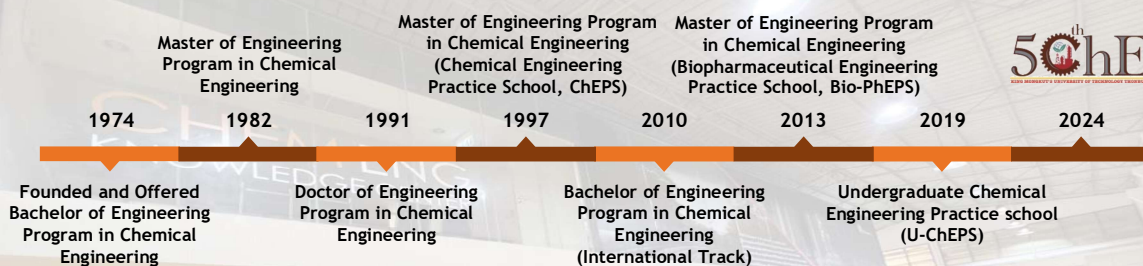




Chemical Engineering KMUTT



What is Chemical Engineering ?

Chemical engineering (CHE) applies basic scientific and mathematical principles to design, develop and operate chemical processes to make them more cost effective, efficient and environmentally friendly. CHE involves the studies of the chemical processes, transport phenomena, the design of unit operation equipment such as heat exchanger, distillation column and reactors, as well as the process control and plant design.

Extra-Curriculum Activities

The department is a community of students, faculty, and staff committed to providing not only strong CHE knowledge but also the essential skills to the chemical engineer students together with high moral principles and KMUTT student code of honor: Integrity, Respect and Care for others, Continuous Improvement and Do Something. There are plenty of extra-curriculum activities, both inside and outside the department, that are joyful and helpful in developing one into a complete person. The kind contribution from the CHE Alumni and the connecting activities are also invaluable to the current students.

Why Study Chemical Engineering at KMUTT ?

- ❖ CHE KMUTT is one of the nation's top-ranked schools in Chemical Engineering.
- ❖ Our 22 full-time faculty members in the chemical engineering department at KMUTT have broad expertise in the chemical engineering discipline, providing the student with a diversity of knowledge and various skills. Our faculty members are internationally renowned for their research contributions and collaborations.
- ❖ The availability of educational and research facilities such as classrooms, simulation software, and laboratories equipped with high-performance instruments is one of our great strengths.
- ❖ Our undergraduate students have the opportunity to actively participate in research, problem-based learning, and active learning which helps the students in attaining the program learning outcomes and enhancing their educational experiences throughout their 4 years of study.

Future Careers

The careers that can be pursued after graduation includes:

- Process engineer
 - Process design engineers
 - Process safety engineers
 - Product engineers
 - Technical services
 - Project Engineers
 - Sale Engineers
 - Academic scholars or researchers
- Chemical engineering is applicable to a wide range of industries or technologies. A degree in chemical engineering provides opportunities for challenging and financially rewarding careers in wide-ranging fields, including energy, environment, petroleum and petrochemical, biotechnology, biopharmaceutical, material, and food industries. They also have the skills needed to succeed in studying abroad. Many graduates are employed by large companies such as PTT, SCG, Thai Oil, Chevron, P&G, Siam Bioscience, etc.

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📺 CHEMENGKMUTT



Chemical Engineering KMUTT (International Track)

Bachelor of Engineering Program in Chemical Engineering (International Track)

Student Outcomes (SOs)

- ❖ An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- ❖ An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- ❖ An ability to communicate effectively with a range of audiences.
- ❖ An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- ❖ An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- ❖ An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- ❖ An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Admission Qualifications

- ✓ Complete upper secondary education, in either general education (Matthayom) or vocational education track, with a focus on mathematics and science.
- ✓ Pass the university admissions process administered by the Office of the Ministry of Higher Education, Science, Research, and Innovation (Thai University Central Admission System, TCAS), and/or meet the entry requirements of the Faculty of Engineering, KMUTT.
- ✓ Pass the admission criteria for international students, as announced by the Department of Chemical Engineering on April 8th, 2014

Course Structure

Program structure include

a. General education courses	31	credits
b. Major courses	110	credits
Mathematics and basic science	34	credits
Basic engineering	36	credits
Major required courses	34	credits
Major elective courses	6	credits
c. Free electives	6	credits

Total credits 147 credits

*Revised Program Curriculum 2021 approved by the University Council in its meeting no.257 on January, 2021

Program Educational Objectives (PEOs)

- ❖ Graduates practice proficiently as chemical engineers by working in established and emerging industrial sectors.
- ❖ Graduates actively engage in management and team-building/leadership activities to achieve the organization goals.
- ❖ Graduates work ethically and professionally on high-impact chemical engineering problems, thereby contributing significantly to the environmental sustainability, safety, and well-being of communities in the region and beyond.
- ❖ Graduates maintain steady career growth by constantly pursuing new knowledge and innovative technology through self-learning and/or advanced academic activities.



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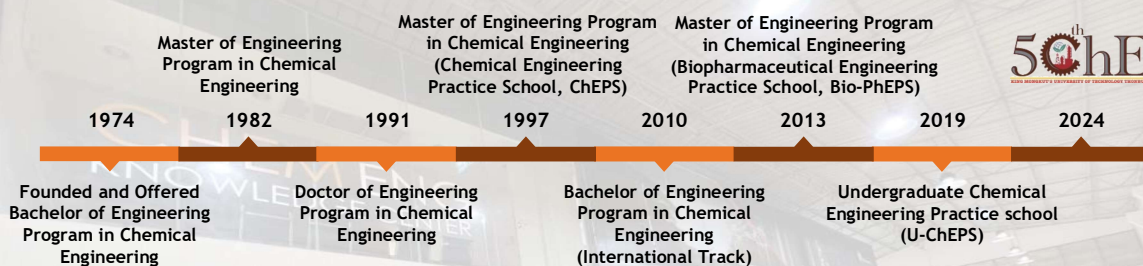
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Chemical Engineering KMUTT



Home of

- 1 Undergraduate Program (Thai and International Tracks)
- 2 Graduate Practice Schools (ChEPS, Bio-PhEPS)
- 3 Programs (B.Eng, M.Eng. and D.Eng.)
- 5 Research Areas (Biotech, Energy, Environment, Materials, and Process Simulation & AI)
- 22 Faculty Members and 15 Supporting Staff

At CHE KMUTT

We adopt Outcome-Based Education (OBE) and value Student Outcomes.

We support our students both academic skills and essential skills.



We provide extra-curriculum activities.

We embrace diversity, equity, and inclusion.

Come join us! (<https://admission.kmutt.ac.th>)



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